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Dear John

## RE Cross- submission on process and issues paper for DPP from 2015

Right House welcomes the opportunity to make this submission which is focused on the issues raised in the Electricity Networks Association submission of the EEI Working Group Final Report "Options and Incentives for Electricity Distribution Businesses to Improve Supply and Demand-Side Efficiency".

Right House notes section 54Q of the Commerce Act requires the Commission to promote incentives and avoid imposing disincentives for energy efficiency related investment when setting the price paths for electricity distribution businesses (EDBs), including, if necessary, by amending input methodologies, in order to provide a framework that better incentivises such improvements.

## **Background on Right House**

Right House is a wholly owned subsidiary of the Mark Group in the United Kingdom. The Mark Group is an international company, with over 1,500 employees in 6 countries, which is dedicated to providing a 'whole house' solution to energy-efficiency. Founded in 1974, Mark Group has already helped to make more than two million homes more energy-efficient, currently installing around 8,000 insulation measures every week. Mark Group is installing over three megawatts of micro Solar PV throughout the world every month. In NZ we are the largest the largest installer of residential Solar PV – installing up to 100 systems per month on NZ homes.

The corporate ownership of Right House by the Mark Group brings a level of international experience, knowledge and capability to Right House that sets it apart from its competitors. It also brings the combined buying power of the corporate group to Right House and enables it to source products including insulation materials, photovoltaic systems and heating options at highly competitive prices and to pass those benefits on to its customers. For further information on the Mark Group please refer to www.markgroup.co.nz

## Comments

Energy efficiency and supply initiatives reduce volumes delivered by EDBS

We note that volumes transported by EDBS are flat to declining. There is no definitive understanding of the drivers of this trend but overall electricity consumption may already be reflecting the benefits of investments by consumers in more efficient appliances, insulation, micro-distributed generation etc.

Right House agrees it is appropriate that the regulatory regime allows EDBs to achieve an appropriate return on their investment. It is important the regime also minimise the potential for this return not to be achieved. At the moment, EDBs take some risk that volumes are less than forecast and therefore revenue is less than allowed. It appears some EDBS are reducing this risk by increasing their fixed charges as a proportion of the total charge - even to be 100% of the total charge. Right House is concerned that a fully fixed charge for lines services provides no incentive or signal to electricity consumers that they can benefit if they reduce their consumption.

We also support the EEI report that the low fixed charge regulations discourage efficiency option. We agree that MBIE should consider repealing the Low User Fixed Charge regulations or replace them with alternative measures that do not have unintended consequences on undertaking efficiency options.

Who invests in energy efficiency and supply initiatives?

Right House supports ENA's conclusions that supply and demand efficiency initiatives may defer the need to expand network capacity for a period of time, in some cases can eliminate the need for traditional investment altogether or remove the need to renew existing assets.

Right House submits that the regime should be indifferent to the person that makes the investment in supply and demand efficiency initiatives. It will be appropriate that EDB's invest in some initiatives such as reducing losses or pricing structures that encourage energy efficiency and that the regulatory regime includes a mechanism for the EDB to benefit from providing that initiative.

Right House and numerous other businesses are selling innovative supply and demand efficiency solutions to electricity consumers. This business opportunity should continue to be open to all players. Importantly, the benefit for the EDB (in deferred / lower investment) created by these initiatives must be passed on to that third party.

Right House supports ENA's description of the role of EDBs with respect to distributed generation to be one of "facilitating uptake of DG and encouraging use of storage to help manage peak demands" <sup>1</sup>

EDBs can facilitating DG by offering a standardised, timely and low cost process to achieve connection of DG, such as solar pv, as well as a pricing structure by the EDB that ensures the consumer realises a benefit from taking less electricity from the network.

## Solar pv

We provide the following details to better inform the Commission about the impact of solar pv on electricity networks. This is a response to information provided in the EEI report:

EEI report page 12 – voltage regulation:

The new AS/NZ 4777 operating standard (currently in draft form) for approved inverters used on solar pv systems will require the voltage drop/rise not exceed 1% of the nominal voltage at the point of supply. This operating range is significantly tighter than the voltage range allowed for the electricity system in the Electricity Industry Participation Code of +/- 6%.

Inverters with advanced grid features are now available and will become more common over the next few years. The advanced grid features should serve to benefit both the end-users and the EDBs. Advanced grid features incorporate a range of functions that support reliable grid operation. For example, inverters can provide power factor and VAR support to help maintain grid voltage and offset the need for installation of expensive voltage management devices.

EEI report page 17 - volatile production levels by solar pv:

While NZ is experiencing reasonable growth in installation of new residential scale solar pv systems, we are significantly below the level of penetration in any network in NZ where there could possibly be any need for an EDB to not support connection of new systems because of solar's electricity production profile. Technology and costs relating to storage systems are improving all the time and installation of storage systems could be commonplace within a timeframe which means the level of penetration will never be an issue.

Additionally, energy management controls to increase self-consumption and limit export are becoming standard features of many inverters and are available as retrofit products. These devices serve to divert energy, that would previously have been exported, to hot water cylinders, pumps, or other loads which are not time critical. One potential benefit of an integrated load management

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<sup>&</sup>lt;sup>1</sup> Source: Table 3.2 page 23

control system would be to improve grid stability by limiting voltage rise on the network during periods of high irradiance (and low demand).

I would welcome the opportunity to discuss this submission with you in more detail.

Yours sincerely,

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